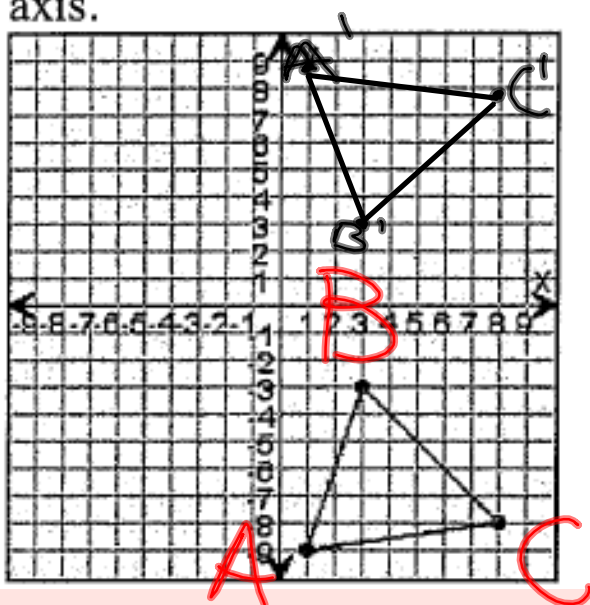
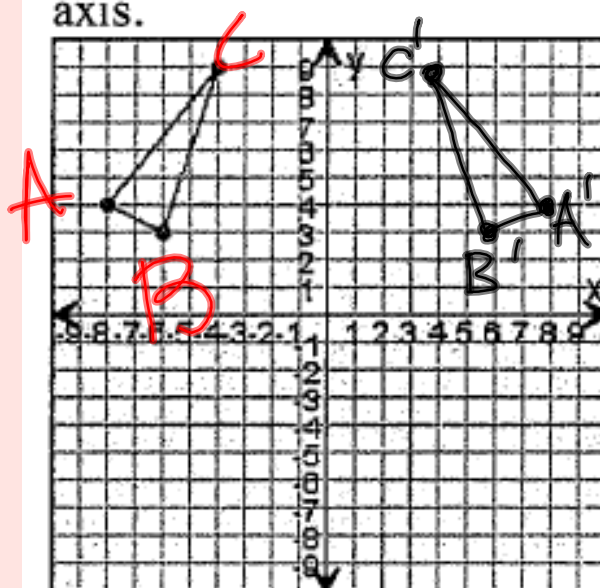


Warm-up

Reflect the triangle over the x-axis.



Reflect the triangle over the y-axis.



State the ordered pairs for A' , B' and C' for each reflection.


Warm-up

If point A is (4, -5)

What would A¹ be if it was reflected over the x-axis?

 (4, 5)

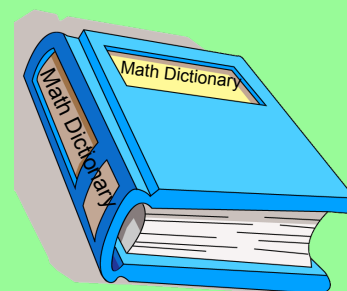
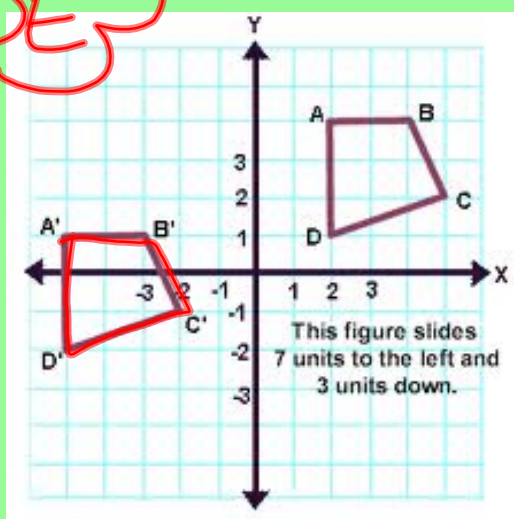
What would A¹ be if it was reflected over the y-axis?

 (-4, -5)


Put this in your math dictionary...

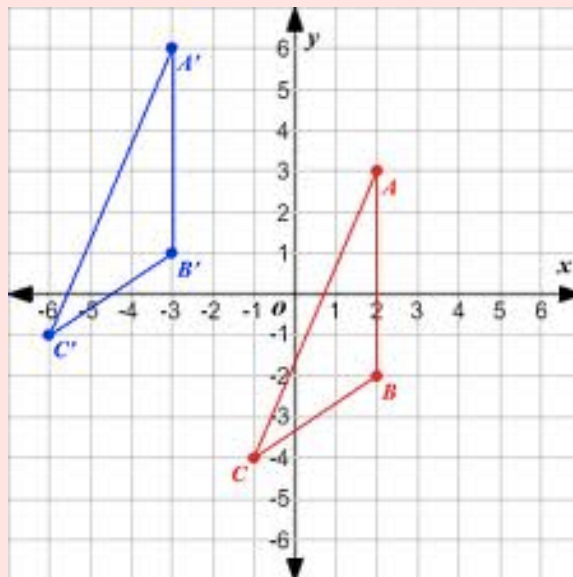
Translation: is a transformation of the plane that moves every point in the plane the same distance in the same direction.

SLIDE



Video Translating a Triangle

 http://www.youtube.com/watch?v=XdjH_EWhCZ0



List the coordinates for
A, B, and C

A (-7, 7)

B (-7, 5)

C (-1, 4)

Then translate and list the
coordinates of A' , B' , and C'

+5 -3
 A' (-2, 4)

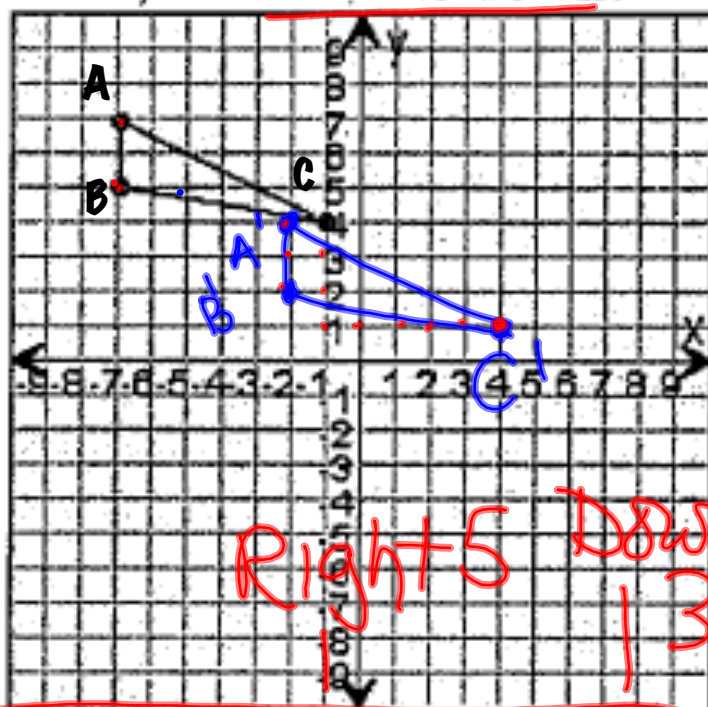
B' (-2, 2)

C' (4, 1)

If you start at (x, y) , write an
algorithm to get to your
translated point

Answer

Translate the triangle right 5
units, then 3 units down.



Right 5 Down 3

$$(x, y) \Rightarrow (x+5, y-3)$$

- 4 + 6
left 4 up 6

$$(x, y) \Rightarrow (x - 4, y + 6)$$

List the coordinates for
A, B, and C

A(-8, -5)

B(-6, -3)

C(-5, -5)

Then translate and list the
coordinates of A^1 , B^1 , and C^1

$A^1(-6, 4)$

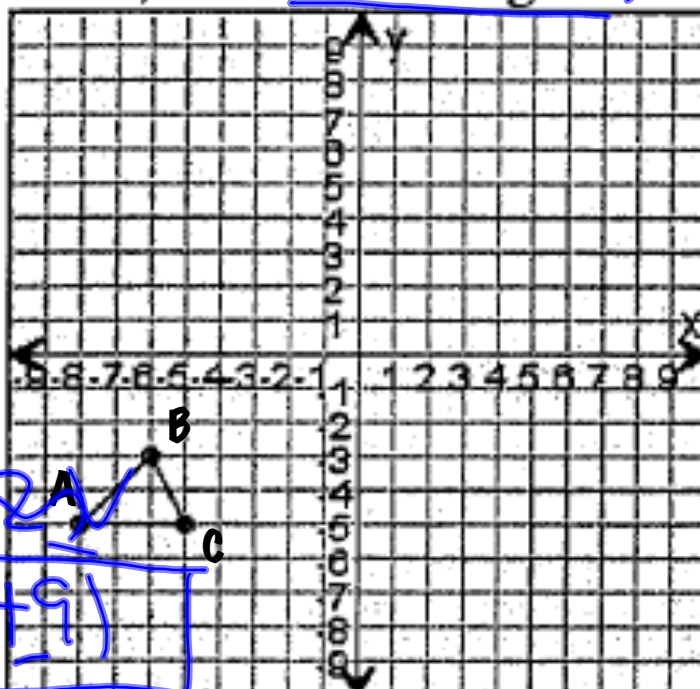
$B^1(-4, 6)$

$C^1(-3, 4)$

If you start at (x, y) , write an
algorithm to get to your
translated point

Answer

Translate the triangle up ~~9~~ 9
units, then 2 units right. +



List the coordinates for
A, B, and C

A (,)

B (,)

C (,)

Then translate and list the
coordinates of A^1 , B^1 , and C^1

A^1 (,)

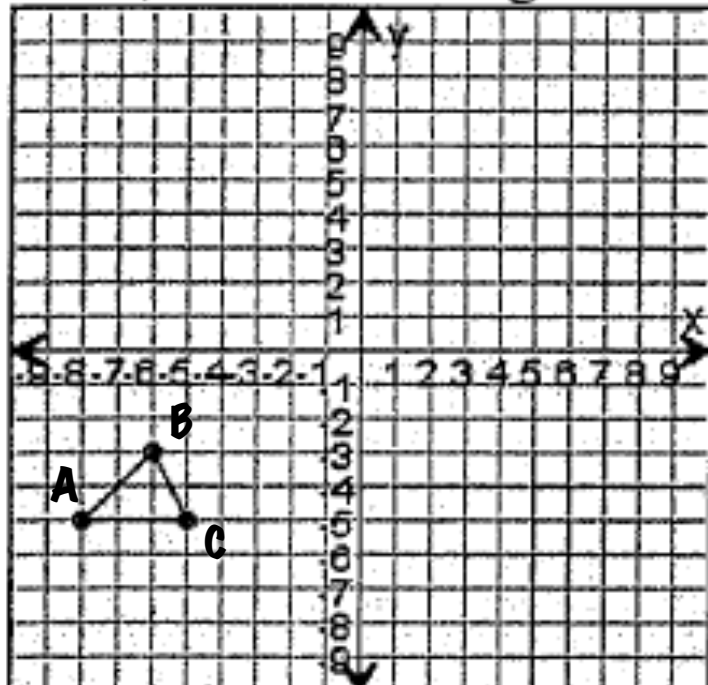
B^1 (,)

C^1 (,)

If you start at (x,y) , write an
algorithm to get to your
translated point

Answer

Translate the triangle up 9
units, then 2 units right.



List the coordinates for
A, B, and C

A (,)

B (,)

C (,)

Then translate and list the
coordinates of A^1 , B^1 , and C^1

A^1 (,)

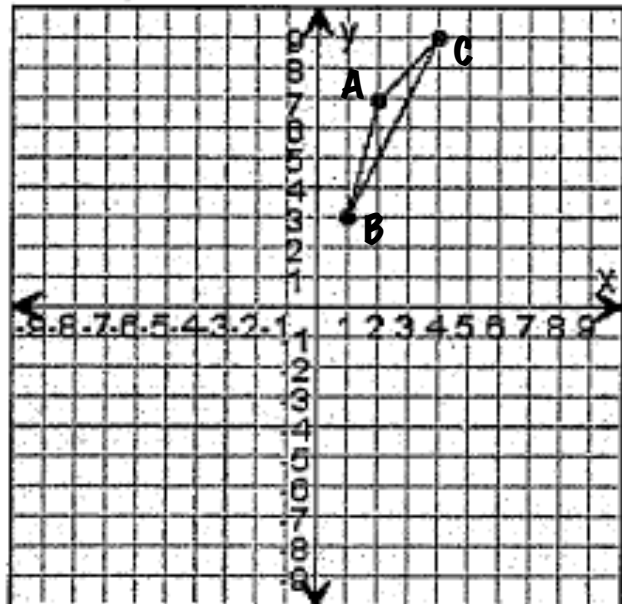
B^1 (,)

C^1 (,)

If you start at (x,y), write an
algorithm to get to your
translated point

Answer

Translate the triangle down 8
units, then 8 units left.



List the coordinates for
A, B, and C

A (,)

B (,)

C (,)

Then translate and list the
coordinates of A^1 , B^1 , and C^1

A^1 (,)

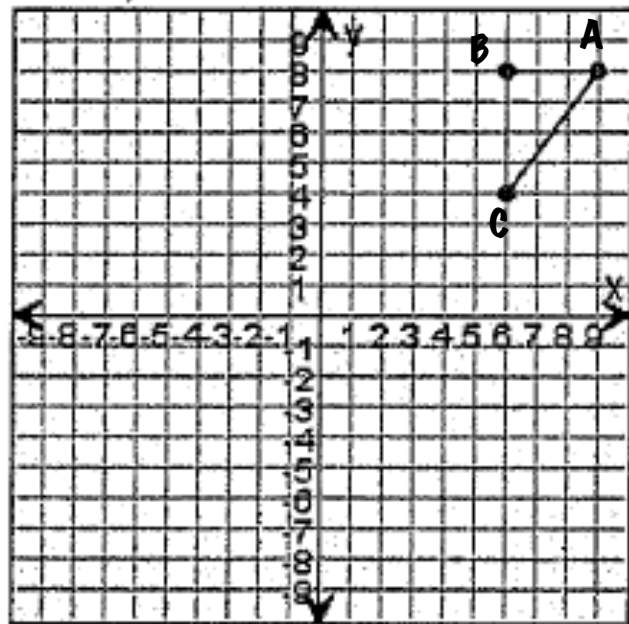
B^1 (,)

C^1 (,)

If you start at (x,y) , write an
algorithm to get to your
translated point

Answer

Translate the triangle down 6
units, then 7 units left.



No Graphing Algorithm/ Integer review

If point A is (x, y) and A' is (x-5, y+6)

Using that algorithm Find B', C', D', E', F', G',

$$B(9, 2) \xrightarrow{-5+6} B'(4, 8)$$

$$C(-3, 4) \rightarrow C'(-8, 10)$$

$$D(-1, 0) \rightarrow D'(-6, 6)$$

$$E(2, -2) \rightarrow E'(-3, 4)$$

$$F(0, 9) \rightarrow F'(-5, 15)$$

$$G(1, -3) \rightarrow G'(-4, 3)$$

$$B'(4, 8)$$

$$C'(-8, 10)$$

$$D'(-6, 6)$$

$$E'(-3, 4)$$

$$F'(-5, 15)$$

$$G'(-4, 3)$$

If:

 $A(-4, 8)$ $B(-4, 2)$ $C(-2, 1)$

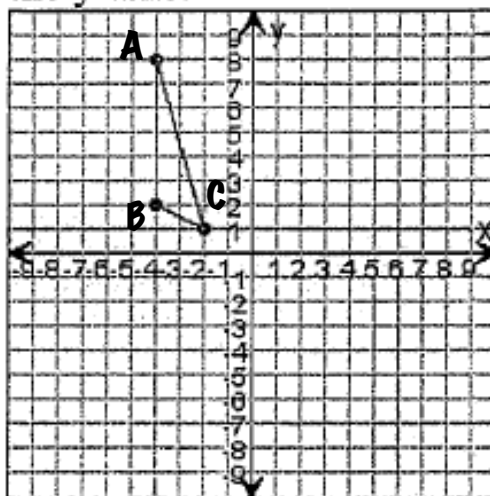
translate and find:

 $A^1 (\quad , \quad)$ $B^1 (\quad , \quad)$ $C^1 (\quad , \quad)$

Reflect and find:

 $A'' (\quad , \quad)$ $B'' (\quad , \quad)$ $C'' (\quad , \quad)$ **Mack Daddy Challenge #1**

- . Translate the triangle down 4 units, then 5 units left. Then reflect the new triangle over the y-axis.



Homework:

Translation WS

